

this resistance over the period of time which it remains in place. At the same time, these desirable characteristics must be achieved without sacrifice of other well recognized desirable characteristics. In the case of catheters, for example, it is important that any coating thereon leave a surface which provides a minimum of resistance to insertion of the catheter and which does not release a toxic substance to be adsorbed by the body.

Brief Summary Text - BSTX (5):

Furthermore, some uses of antimicrobial metal compounds including silver salts in antimicrobial coatings for medical devices are known. Also, chlorhexidine and its salts are known to be powerful antiseptics, but the combination of chlorhexidine with silver nitrate has been shown to have prophylactic properties in burn therapy. In addition, the combination of chlorhexidine and sulfadiazine is known in topical applications to exhibit synergism against strains of Pseudomonas, Proteus, and Staphylococcus, as disclosed in Quesnel et al, Synergism between Chlorhexidine and Sulphadiazine, Journal of Applied Bacteriology, 1978, 45, 397-405.

Brief Summary Text - BSTX (7):

A principal object of the present invention is to provide an improved method of preparing an infection-resistant medical device which will impart antimicrobial activity to the medical device through a sustained and controlled activity rate over an appreciable period of time, without hampering the biocompatibility of the surface and other intended functions of the device. A further object of the present invention is to provide an infection-resistant medical device having superior antimicrobial properties.

Brief Summary Text - BSTX (8):

Still another object of the present invention is to provide an antimicrobial composition useful in providing an antimicrobial coating on medical devices.

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	1181	antimicrobial and (medical adj3 device or implant or prosthesis) and (silver or silver adj3 salt)	US- PGPUB; USPAT; USOCR; EPO; JPO; DERWEN T
2	BRS	L2	133	antimicrobial and (medical adj3 device or implant or prosthesis) and (silver or silver adj3 salt)and (ptfe or eptfe)	US- PGPUB; USPAT; USOCR; EPO; JPO; DERWEN T
3	BRS	L3	12	antimicrobial and (medical adj3 device or implant or prosthesis) and (silver or silver adj3 salt)and (ptfe or eptfe) and hernia	US- PGPUB; USPAT; USOCR; EPO; JPO; DERWEN T

. Brief Summary Text - BSTX (9):

In accordance with the first embodiment of the present invention, there is provided a method of preparing an infection-resistant medical device which comprises

Brief Summary Text - BSTX (11):

(b) incorporating at least one antimicrobial agent in the coating vehicle to form a coating composition;

Brief Summary Text - BSTX (12):

(c) coating a medical device with the coating composition; and

Brief Summary Text - BSTX (13):

(d) drying the coated medical device.

Brief Summary Text - BSTX (14):

It is preferred in the first embodiment that the antimicrobial agent be a combination of a silver salt and a biguanide and further preferred that the antimicrobial agent be a combination of a silver salt and a member of the group consisting of chlorhexidine and its salts. Also useful are chlorhexidine alone or in combination with nonoxynol 9, or piperacil as well as silver sulfadiazine in combination with nonoxynol 9.

Brief Summary Text - BSTX (15):

In accordance with a second embodiment of the present invention, there is provided an antimicrobial composition comprising a mixture of (a) chlorhexidine and its salts, and (b) a silver salt.

Brief Summary Text - BSTX (16):

Further, in accordance with a second embodiment of the present invention there is provided a method of preparing an infection-resistant medical device which comprises incorporating thereon or therein an antimicrobial agent comprising (a) a member of the group consisting of chlorhexidine and its salts, and (b) a member of the group consisting of silver and its salts.

Brief Summary Text - BSTX (17):

The second embodiment of the present invention further provides an infection-resistant medical device having a coating thereon comprising (a) a member of the group consisting of chlorhexidine and its salts, and (b) a member of the group consisting of silver and its salts.

Brief Summary Text - BSTX (18):

Another embodiment of the present invention still further provides a method for coating a medical device to provide an infection-resistant coating thereon which comprises the steps of:

Brief Summary Text - BSTX (20):

(b) dissolving an antimicrobial agent selected from the group consisting of chlorhexidine and its salts in a solvent which is miscible with the solvent polymer mixture prepared in step (a);

Brief Summary Text - BSTX (21):

(c) dispersing a silver salt in one of the solutions prepared in (a) or (b);

Brief Summary Text - BSTX (23):

(e) applying the coating vehicle to the surface of the medical device; and

Brief Summary Text - BSTX (24):

(f) drying the coated medical device.

Brief Summary Text - BSTX (25):

In addition, the present invention provides an antimicrobial composition useful in applying an infection-resistant coating to medical devices which, in use, will exhibit a sustained activity rate over an appreciable time period.

Brief Summary Text - BSTX (27):

Surfaces which may embody the present invention can be generally any surfaces that contact patients or are important in health care, including table tops, hospital beds and various specific medical devices. Medical devices are those for use both externally and internally and include, for example, urinary, both internal and external, and intravenous catheters, contraceptives

such as
condoms, medical gloves, such as surgical and examination gloves,
wound
dressings, drainage tubes, orthopedic, penile and other implants,
wound clips,
sutures, hernia patches and arterial grafts. The devices or
surfaces,
sometimes generally together referred to as "surfaces" herein, can be
made of